

# Recovery Plan Action Status

Plan Name: Terlingua Creek Cat's Eye

Plan Status: Final

Plan Date: 05-Apr-94

Lead Agency: USFWS

Lead Office: Austin Ecological Services Field Office

(512)

490-0057 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	11	Identify landowners with populations or individuals of Cryptantha crassipes	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, Texas Nature Conservancy , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 121, 122, 13, 14 ,16, 211, 3, 4 ,5, and 7. ES costs: FY1 = 2K, FY2 = 1K. TNC costs: FY1 = 0.5K, FY2 = 0.25K. TPWD costs: FY1 = 0.5K, FY2 = 0.25K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	121	Work with landowners to establish sites protected from existing and future threats	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, Texas Nature Conservancy , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	TNC landowner liaison helpful. Necessary to tasks 122, 123, 52 and 6. ES costs = 3K/year. TNC costs = 0.5K/year. TPWD costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	122	Collaborate with landowners to establish short-term management actions that adequately protect the species	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, Texas Nature Conservancy , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 123, 52, and 6. ES costs: FY1 = 5K, FY2 = 3K. TPWD costs: FY1 = 1K, FY2 = 0.5K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	123	Work cooperatively with landowners to develop and implement a long-term management plan for each population	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Start after short-term plans. Necessary to tasks 6 and 8. ES costs = 2.5K in FY3. TPWD costs = 1K in FY3.

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Terlingua Creek cat's-eye (Cryptantha crassipes)	1	13	Explore the possibility of land trade or purchase from willing sellers at fair market value of tracts supporting significant numbers of Cryptantha crassipes	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Division of Realty, Texas Parks and Wildlife Department, Texas Nature Conservancy , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Cost dependant on tract sizes, availability of land for trade, and location of willing sellers. Estimated price \$100/acre. Helpful to tasks 123, 2, 3, and 52.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	14	Ensure compliance with applicable Federal and State laws and regulations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Law Enforcement Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Other: Law Enforcement, Other: Regulations	Internal Field Assistance, Internal Technical Assistance	ES costs = 2K/year. LE costs = 1K/year. TPWD costs = 2K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	15	Monitor populations for general condition, reproductive success, and other factors that would assist in management	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 122, 123, 16, 315, and 52. Helpful to most of task 3. Necessary to detect rapid decline. ES costs = 5K/year. TPWD costs = 5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	16	Assess and revise management plans regularly to address the needs of the species and the landowners	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Not initiated until year 5 or 6. Action duration is every 2-3 years.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	211	Collect propagative material for cultivated populations and seed storage banking	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Soil Conservation Service , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 212, 213, 331, 332, 333, and 52. SCS plant materials center and CPC member gardens are potential cooperators. ES costs: FY1 = 5K, FY2 = 3K, FY3 = 1K. SCS costs = 0.5K/year. CPC costs: FY1 = 1K, FY2 = 1K, FY3 = 0.5K.

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Terlingua Creek cat's-eye (Cryptantha crassipes)	1	212	Maintain and monitor propagative material in cultivated populations and seed storage banks	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Soil Conservation Service , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 213, 331, 332, 333, and 52. SCS plant materials centers and CPC member gardens are potential cooperators. ES costs: FY1 = 5k, FY2 = 2K, FY3 = 1.5K. SCS costs = 0.5K/year. CPC costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	213	Conduct research based on needs and opportunities of the cultivation program	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Soil Conservation Service , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for task 212; coordinate with tasks 331 and 332. ES costs: FY1 = 1K, FY2&3 = 0.5K/year. SCS costs = 0.5K/year. CPC costs: FY1 = 1K, FY2&3 = 0.5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	3	214	Develop data collection guidelines and promote information sharing for conservation collection	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, Soil Conservation Service , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Makes data comparable and prevents duplication of effort. Needed for tasks 211, 212, 213, 215, and 22. ES costs: FY1 = 2K, FY2&3 = 0.5K/year. TPWD costs: FY1 = 0.5K, FY2&3 = 0.25K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	215	Plan for the dissemination and disposal of live material	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, Soil Conservation Service , USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed to protect integrity of genome and protect against wasted resources. All costs are in FY1: ES costs = 0.5K, CPC costs = 0.5K, SCS costs = 0.25K, TPWD costs = 0.25K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	22	Coordinate and incorporate results from propagation program with other research efforts	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 211, 212, 213, 52, 53, and 6. ES costs = 0.5K/year. TPWD costs = 0.5K/year. CPC costs = 0.5K/year. Action duration is ongoing and continuous.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	311	Evaluate climate	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 41, 51, 52, and 6. ES costs: FY1&2 = 3K/year, FY3 = 1K. TPWD costs: FY1&2 = 0.5K/year, FY3 = 0.75K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	312	Determine exact geologic and edaphic features	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Soil Conservation Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 41, 51, 52, and 6. ES costs = 3K/year. SCS costs = 0.5K/year. Cost estimates are for FY1&2.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	313	Study community structure and associated species	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 122, 123, 41, 51, 52, and 6. ES costs = 8K/year. TPWD costs = 2K/year. Cost estimates are for FY1&2.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	3141	Determine successional stage	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 41, 51, 52, and 6. ES costs = 5K/year. TPWD costs = 1.5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	3142	Evaluate species dependence on natural phenomena	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 41, 51, 52, 6, and 8. ES costs: FY1&2 = 5K/year, FY3 = 4K. TPWD costs: FY1&2 = 1K/year, FY3 = 0.5K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	3143	Study the response of the species to disturbance	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 3142, 41, 52, and 6. ES costs: FY1 = 6K, FY2 = 5K, FY3 = 4K. TPWD costs: FY1 = 2K, FY2 = 1K, FY3 = 0.5K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	315	Study beneficial and negative interactions with other species	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 123, 3142, 41, 51, 52, and 6. ES costs = 5.5K/year. TPWD costs = 1.5K/year.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3211	Assess present demographic composition and determine viable population structure	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	If low viability is found, tasks 51, 52, 53, and 6 might be elevated to priority one. Necessary to tasks 123, 51, 52, 53, 6 and 8. ES costs = 5K/year. TPWD costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3212	Assess present genetic composition and determine requirements for genetic viability	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	If low viability is found, tasks 51, 52, 53, and 6 might be elevated to priority one. Necessary to tasks 123, 51, 52, 53, 6, and 8. Helpful to task 211.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	322	Describe phenology and identify critical stages	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 122, 123, 211, 16, 3142, 3143, 51, 53, 6, and 8. ES costs = 5K/year. TPWD costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3231	Study pollination biology	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 122, 123, 212, 51, 52, 53, 6, and 8. Helpful to task 315. ES costs = 5K/year. TPWD costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3232	Ascertain modes of reproduction and the contribution of each type to the population	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks, 122, 123, 212, 32, 35, 51, 52, 53, 6, and 8. Helpful to task 333. ES costs = 6K/year. TPWD costs = 2K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3233	Examine aspects of seed biology in the natural habitat	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 211, 212, 123, 16, 51, 52, 53, and 8. ES costs: FY1 = 2K, FY2&3 = 1K. TPWD costs = 0.5K/year.

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Terlingua Creek cat's-eye (Cryptantha crassipes)	1	3234	Study seedling biology and ecology in the natural habitat	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 123, 211, 212, 51, 52, 53, and 6. ES costs: FY1 = 3K, FY2&3 = 1K/year. TPWD costs: FY1 = 1.5K, FY2&3 = 0.5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	331	Examine the characteristics of seed biology under controlled conditions	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, Soil Conservation Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 212 and 52. Coordinate with tasks 213 and 22, SCS and CPC are potential cooperators. ES costs: FY1 = 2K, FY2&3 = 1K/year. CPC costs = 0.5K/year. SCS costs = 0.5K/year. TPWD costs = 0.5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	332	Delineate cultivation techniques from seedling to reproductive adult stages and identify critical phases	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, Soil Conservation Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 212, 52, and 6. ES costs: FY1 = 3K, FY2&3 = 1.5K/year. CPC costs = 0.5K/year, SCS costs = 0.5K/year. TPWD costs: FY1 = 1K, FY2&3 = 0.5K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	333	Investigate other propagation techniques	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Center for Plant Conservation, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 212, 52, and 6. ES costs = 3K/year. CPC = 0.5K/year. TPWD costs = 1K/year.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	41	Identify potential habitat	Not Started				Work type not yet selected	Labor type not yet selected	Incorporate information from task 31. Needed for tasks 42, 52, and 6.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	42	Survey identified sites for existing populations and for potential sites for establishment of new populations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 11, 14, 52 and 6. ES costs = 4.5K/year. TPWD costs = 1.5K/year.

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Terlingua Creek cat's-eye (Cryptantha crassipes)	2	51	Determine if known populations require augmentations and if the habitat can support more individuals	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Depends on outcome of task 3 research. Needed for task 52. ES costs: FY1&2 = 3K/year, FY3 = 2K. TPWD costs: FY1&2 = 1K/year, FY3 = 0.5K.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	52	Develop and establish an experimental program for augmentation and/or establishment of new populations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for task 6. Should not be initiated prior to analysis of data obtained in tasks 3211, 3212, 312, 313, 3141.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	53	Monitor experimental program results and evaluate the feasibility of augmentation and/or new population establishment	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Follows completion of task 52.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	6	Initiate an augmentation and/or new population establishment strategy if required and feasible	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Depends on outcome of tasks 52 and 53.
Terlingua Creek cat's-eye (Cryptantha crassipes)	2	7	Encourage public interest and concern for the species and its preservation	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Needed for tasks 121, 122, 123, 13, and 14. Helpful to task 42. ES costs: FY1 = 5K, FY2&3 = 1K/year. TPWD costs = 1K/year. Action duration is ongoing and continuous.
Terlingua Creek cat's-eye (Cryptantha crassipes)	3	8	Develop a post-recovery monitoring plan	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Parks and Wildlife Department, USFWS Regional Office 2	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Technical Assistance	